

Commissioner of Patents and Trademarks  
Box Patent Application  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the utility patent application of:

Inventor: DANIEL L. POOLE; ROBERT N. POOLE  
Entitled: CLAMP DEVICE

Enclosed are:

  X     25   sheets of specification and claims

  X     7   sheet(s) of drawings and 3 copies of same

..... An Assignment of the invention to: .....

  X   Declaration and Power of Attorney (x)Executed ( )Unexecuted

  X   Verified statement to establish Small Entity Status under 37 CFR 1.9 and 37 CFR 1.27

  X   Information Disclosure Statement

  X   Also enc.: Information Disclosure Citation and 2 cited references

The filing fee has been calculated as shown below:

	(Col. 1)	(Col.2)	SMALL ENTITY		LARGE ENTITY	
FOR:	NO. FILED	NO. EXTRA	RATE	FEE	RATE	FEE
BASIC FEE:	1		X380 = \$		X760	790
TOTAL CLAIMS:	17 - 20 =	0	X 9 = \$	or	X 18 = \$	0
INDEP CLAIMS:	2 - 3 =	0	X 39 = \$	or	X 78 = \$	0
MULTIPLE DEPEND CLAIM PRESENTED			X130 = \$	or	X260 = \$	0
CHECK ENCLOSED:			TOTAL= \$380		TOTAL=\$	

\_\_\_ Please charge the Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.

\_\_\_ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. \_\_\_\_\_.

\_\_\_ A duplicate copy of this transmittal sheet is enclosed.

Respectfully submitted,

*Robert A. Parsons*

Robert A. Parsons, Reg. No. 32,713

Date

11/30/99

11/30/99  
JC662 U.S. PTO

11/30/99  
JC525 U.S. PTO  
09/451580

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Daniel L. Poole )  
Robert N. Poole )  
Serial No.: )  
Filed: Herewith )  
Title: CLAMP DEVICE )

CERTIFICATE OF EXPRESS MAILING

Honorable Commissioner of  
Patents and Trademark  
Washington, D.C. 20231

"Express Mail" mailing label number: EL386865835US  
Date of Deposit: 30 November 1999

Dear Sir:

I hereby certify that the attached Application Transmittal Form; Declaration and Power of Attorney, executed; Small Entity Statement, executed; Information Disclosure Statement; Information Disclosure Citation and two (2) cited reference; Application: Specification, eighteen (18) pages; Claims, six (6) pages; Abstract, one (1) page; seven (7) sheet(s) informal drawings and three (3) copies of same; check for appropriate fee; and a postcard are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" under 37 CFR 1.10 addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, Box PATENT APPLICATION on 30 November 1999.

Walter Eckroth  
Signature

PARSONS & GOLTRY  
340 East Palm Lane  
Suite 260  
Phoenix, Arizona 85004  
(602) 252-7494

30 November 1999  
Date

Respectfully submitted,

Robert A. Parsons  
Robert A. Parsons  
Attorney for Applicant  
Registration No. 32,713

Applicant or Patentee: Daniel L. Poole, Robert N. Poole  
Serial or Patent No.: Attorney's Reg. No.: 32,713  
Filed or Issued: Herewith Docket No.: 3339-PA13  
For: CLAMP DEVICE

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR 1.9(f) and 1.27(b))--INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled CLAMP DEVICE

described in

☒ the specification filed herewith  
\_\_\_\_\_ application serial no. \_\_\_\_\_, filed \_\_\_\_\_.  
\_\_\_\_\_ patent no. \_\_\_\_\_, issued \_\_\_\_\_.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ no such person, concern, or organization  
\_\_\_\_\_ persons, concerns or organizations listed below\*

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
\_\_\_\_ Individual \_\_\_\_ Small Business Concern \_\_\_\_ Nonprofit Organization

FULL NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
\_\_\_\_ Individual \_\_\_\_ Small Business Concern \_\_\_\_ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))


I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Daniel L. Poole  
Name of Inventor

  
Signature of Inventor

11-30-99  
Date

Robert N. Poole  
Name of Inventor

  
Signature of Inventor

11/30/99  
Date

CLAMP DEVICE

Invented by

**Daniel L. Poole**

a resident of

3319 West Malapai Drive  
Phoenix, Arizona 85051

and

**Robert N. Poole**

a resident of

39820 North Seventh Street  
Phoenix, Arizona 85027

both citizens of  
the United States

CLAMP DEVICE

1 CLAMP DEVICE

2

3 This application claims the benefit of U.S.  
4 Provisional Application 60/132,266, filed 03 May 1999.

5

6 FIELD OF THE INVENTION

7

8 This invention relates generally to clamping devices,  
9 and more particularly to clamping devices which can be  
10 manipulated with one hand.

11

12 BACKGROUND OF THE INVENTION

13

14 Clamping devices are well known and have been in use  
15 for many years. Particularly, straight bar friction  
16 locking clamps are extremely popular. These clamp devices  
17 can be operated one handed, and are very effective. The  
18 problem with these devices is that they operate in a linear  
19 fashion, with the clamping jaws sliding directly toward and  
20 away from one another. This structure presents some  
21 limitations such as limiting access of the clamp in tight  
22 spots, etc.

1        Often, pliers are used to clamp items together because  
2        the motion of the handles permits their use in closer  
3        spaces.    The problem with pliers is that the user must  
4        maintain the pressure on the handles, as they do not remain  
5        locked in position.    Locking pliers using friction locks  
6        have been introduced, but while they will lock into a  
7        specific configuration, they will not clamp unless the  
8        material to be clamped is resilient.    When rigid items are  
9        to be clamped, the clamping jaws will close to the surface  
10       of the item but will not hold it securely.

11  
12       Accordingly, it would be highly desirable to provide  
13       an improved clamp device.

14  
15       It is a purpose of the present invention to provide a  
16       clamp device which can be operated with one hand.

17  
18       It is another purpose of the present invention to  
19       provide a clamp device which will securely hold a rigid  
20       item.

21  
22       It is still another purpose of the present invention  
23       to provide a clamp device with a release trigger which  
24       remains in position.

1           It is a further purpose of the present invention to  
2 provide a clamp device which can be operated in confined  
3 spaces.



1                   Summary of the Invention

2

3           The above problems and others are at least partially

4   solved and the above purposes and others are realized in a

5   clamp device. The clamp device includes a first member and

6   a second member, each having a handle portion and a jaw

7   portion. The jaw portions and/or the handle portions are

8   flexible in an outward direction and biased in an inward

9   direction for the jaw portion and the reverse for the

10   handle portions. A pivot pivotally couples the first

11   member and the second member intermediate their respective

12   handle portion and jaw portion for opposed pivotal motion

13   between an open position and a closed position. Also

14   provided is a locking assembly having a frictionally

15   engaged position, preventing the first member and the

16   second member from moving toward the open position and a

17   disengaged position allowing the first member and the

18   second member to move toward the open position.

19

20           In specific embodiments the locking assembly includes

21   an arcuate clamp bar having a first end coupled to the

22   first member and a second end. An arc of the arcuate clamp

23   bar is concentric with the pivot. Also provided is a break

24   lever having an end pivotally coupled to the second member

1 and having an aperture with the arcuate clamp bar extending  
2 therethrough. The break lever is movable laterally between  
3 the frictionally engaged position, frictionally engaging  
4 the arcuate clamp bar, and the disengaged position, and is  
5 substantially motionless longitudinally.

BRIEF DESCRIPTION OF THE DRAWINGS

Specific objects and advantages of the instant invention will become readily apparent to those skilled in the art from the following detailed description of a preferred embodiment thereof taken in conjunction with the drawings, in which:

FIG. 1 is a perspective view of a clamp device in accordance with the present invention, hidden portions illustrated in broken lines for clarity;

FIG. 2 is a plan view of a snap-on jaw portion broken away to illustrate pivotal movement;

FIG. 3 is a plan view of a clamp bar of the clamp device of FIG. 1;

FIG. 4 is a side elevational view of a brake lever of the clamp device of FIG. 1;

FIG. 5 is a plan view of the clamp device of FIG. 1 with the brake lever in an inoperative mode, portions thereof broken away;

1        FIG. 6 is a plan view of the clamp device of FIG. 1 as  
2   it appears in the closed position, hidden portions  
3   illustrated in broken lines for clarity;

4  
5        FIG. 7 is a plan view of another embodiment of a clamp  
6   device in the closed position according to the present  
7   invention, hidden portions illustrated in broken lines for  
8   clarity;

9  
10       FIG. 8 is a plan view of a clamp bar of the clamp  
11   device of FIG. 7;

12  
13       FIG. 9 is a side elevational view of a brake lever of  
14   the clamp device of FIG. 7;

15  
16       FIG. 10 is a perspective view of the clamp device of  
17   FIG. 7 as it appears in an open position, hidden portions  
18   illustrated in broken lines for clarity;

19  
20       FIG. 11 is a perspective view of another embodiment of  
21   a clamp device according to the present invention;

1        FIG. 12 is a perspective view of yet another  
2        embodiment of a clamp device according to the present  
3        invention; and

4

5        FIG. 13 is a plan view of a further embodiment of a  
6        clamp device according to the present invention.

1            DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

2

3

4            Turning now to the drawings in which like reference

5 characters indicate corresponding elements throughout the

6 several views, attention is first directed to FIG. 1, which

7 illustrates a clamp device generally designated 20. Clamp

8 device 20 includes a pair of members 22 and 23 pivotally

9 connected by a pivot 24 (bolt, rivet, screw, etc.) for

10 pivotal opposed operation (i.e. scissors like motion).

11 Member 22 includes a handle portion 25 and a jaw portion 26

12 generally determined by pivot 24. Similarly, member 23

13 includes a handle portion 27 and a jaw portion 28 generally

14 determined by pivot 24. The distal end of jaw portion 26

15 has a snap-on gripping member 30 pivotally coupled thereto

16 (see FIG. 2 for pivotal action). The distal end of jaw

17 portion 28 has a snap-on gripping member 31 pivotally

18 coupled thereto (illustrated in an unsnapped position for

19 clarity). Included in this embodiment is an optional

20 spring 35 which is carried by pivot 24 with outwardly

21 extending ends which engage handle portions 25 and 27 to

22 bias clamp device 20 into the open position illustrated in

23 FIG. 1. Spring 35 can be omitted allowing clamp device 20

1 to be operated similar to conventional pliers with manual  
2 opening and closing.

3

4 In accordance with the present invention, clamp device  
5 20 further has a locking assembly 40 including a clamp bar  
6 42 and a brake lever 43. Clamp bar 42 is an elongate  
7 arcuate design (see FIG. 3) with a coupled end 44 pivotally  
8 attached to handle portion 25 by a roll pin 45 (or any  
9 convenient mechanism to allow limited movement) permitting  
10 relative pivotal movement. A free end 46 of clamp bar 42  
11 extends unhindered through or adjacent to handle portion  
12 27, allowing free relative movement of handle portions 25  
13 and 27. It should be understood that clamp bar 42 can be  
14 received in a groove or aperture 50 formed in handle  
15 portion 27. It should also be understood that clamp bar 42  
16 has an arcuate shape to correspond to the pivotal movement  
17 of elements 22 and 23, and is positioned to be  
18 substantially parallel to pivot 24, i.e. the arc of clamp  
19 bar 42 is concentric with pivot 24. However, slight  
20 variation will still operate.

21

22 Brake lever 43 has an aperture 52 formed therethrough  
23 proximate a pivotal end 53. Clamp bar 42 is slideably  
24 received through aperture 52 with pivotal end 53 of brake





1 conventional pliers. Turning to FIG. 6, clamp device 20 is  
2 shown in a closed position. Because the curvature of clamp  
3 bar 42 is concentric with pivot 24, break lever 43 does not  
4 move longitudinally. This permits the use of latch 60 and  
5 aperture 52 more closely sized to match the width of clamp  
6 bar 42.

7  
8 Referring now to FIGS. 7-10, another embodiment of  
9 clamp device generally designated 120 is illustrated.  
10 Clamp device 120 includes a pair of members 122 and 123  
11 pivotally connected by a pivot 124 (bolt, rivet, screw,  
12 etc) for pivotal opposed operation (i.e. scissors like  
13 motion). Member 122 includes a handle portion 125 and a  
14 jaw portion 126 generally determined by pivot 124.  
15 Similarly, member 123 includes a handle portion 127 and a  
16 jaw portion 128 generally determined by pivot 124. The  
17 distal end of jaw portion 126 preferably has a snap-on  
18 gripping member 130 pivotally coupled thereto although this  
19 may be omitted. The distal end of jaw portion 128 has a  
20 snap-on gripping member 131 pivotally coupled thereto  
21 although this may be omitted if gripping member 130 is  
22 omitted. Included in this embodiment is an optional spring  
23 135 which is carried by pivot 124 with outwardly extending  
24 ends which engage handle portions 125 and 127 to bias clamp

1 device 120 into the open position illustrated in FIG. 10.  
2 Spring 135 can be omitted allowing clamp device 120 to be  
3 operated similar to conventional pliers with manual opening  
4 and closing.

5  
6 In accordance with the present invention, clamp device  
7 120 further has a locking assembly 140 including a clamp  
8 bar 142 and a brake lever 143. Clamp bar 142 is an  
9 elongate arcuate design (see FIG. 8) with a coupled end 144  
10 pivotally attached to handle portion 125 by a roll pin 145  
11 (or any convenient mechanism to allow limited movement)  
12 permitting relative pivotal movement to insure  
13 concentricity of the arc to pivot 124. A free end 146 of  
14 clamp bar 142 extends unhindered through or adjacent to  
15 handle portion 127, allowing free relative movement of  
16 handle portions 125 and 127. In this specific embodiment,  
17 handle portion 127 is hollow, and a pair of parallel spaced  
18 apart roll pin guides 156 contained therein receive clamp  
19 bar 142 slideably therebetween. In this fashion, instead  
20 of clamp bar 142 extending beyond the handle in the closed  
21 position it is contained within the hollow and thickened  
22 handle portion 127.



In each of the previously described embodiments, clamp devices 20 and 120 are preferably formed of a flexible material such as plastic. While rigid materials such as metal may be employed, the clamping operation will not be as effective unless the metal is flexible. By flexing in an outward direction under pressure from the item being clamped, the jaw portions of members 22 and 23 of device 20 and members 122 and 123 of device 120 form a tension system which permits a tight clamping action by their bias in the inward direction. In the same manner, the handle portions of the members flex in an inward direction as compression is applied, and bias outwardly upon release of the compression force, placing pressure upon the jaw portions.

Turning now to FIG. 11, a further embodiment of a clamp device generally designated 220 is illustrated. Device 220 is substantially similar to devices 20 and 120, and in fact can be identical with the addition of clip springs 202 and 203 attached to members 222 and 223 at the distal ends of jaw portions 226 and 228 respectively. Thus, members 222 and 223 can be formed of a rigid material such as steel having no flex, with the flex provided by spring clips 202 and 203. In this manner a tension system providing a strong clamping action is achieved. However,

1 in this embodiment, clips 202,203 can be removed. Clamp  
2 device 220 can be constructed of a resilient and flexible  
3 material such as spring steel. In this manner, jaw  
4 portions 226 and 228 can form a tension system as  
5 previously described. Furthermore, members 222 and 223  
6 include handle portions 225 and 227, respectively. Handle  
7 portions 225 and 227 can also be formed of a flexible and  
8 resilient material. To enhance the flexibility, the  
9 handles can be hollowed as shown. This provides the  
10 flexibility and shape memory required to form a tension  
11 system as described previously.

12

13 Referring to FIG. 12, another embodiment of a clamping  
14 device generally designated 320 is illustrated. Again,  
15 device 320 is substantially identical to the previously  
16 described embodiments, including a pair of members 322 and  
17 323 pivotally connected by a pivot 324 (bolt, rivet, screw,  
18 etc) for pivotal opposed operation (i.e. scissors like  
19 motion). Member 322 includes a handle portion 325 and a  
20 jaw portion 326 generally determined by pivot 324.  
21 Similarly, member 323 includes a handle portion 327 and a  
22 jaw portion 328 generally determined by pivot 324. A flex  
23 in members 322 and 323 is provided by a pivot joint 302  
24 formed in jaw portion 326. The slight pivot is biased by

1 compression spring 303 carried at pivot joint 302 to force  
2 the distal ends of jaw portions 326 and 328 toward one  
3 another in an inward direction. During a clamping  
4 operation, as jaw portions 326 and 328 are brought toward  
5 one another into contact with an item to be clamped, the  
6 terminal ends are moved outward against the bias of spring  
7 303 bringing the whole structure under tension and forming  
8 a strong clamping action. It should be understood that a  
9 pivot joint and compression spring can also be installed on  
10 jaw portion 328.

11  
12 With reference to FIG. 13, another embodiment of a  
13 clamp device generally designated 420 is illustrated.  
14 Clamp device 420 is substantially identical to the previous  
15 embodiments, including a pair of members 422 and 423  
16 pivotally connected by a pivot 424 (bolt, rivet, screw,  
17 etc.) for pivotal opposed operation (i.e. scissors like  
18 motion). Member 422 includes a handle portion 425 and a  
19 jaw portion 426 generally determined by pivot 424.  
20 Similarly, member 423 includes a handle portion 427 and a  
21 jaw portion 428 generally determined by pivot 424. Clamp  
22 device 420 further has a locking assembly 440 including a  
23 clamp bar 442 and a brake lever 443. The difference  
24 between this embodiment and previous embodiments, is that

1 jaw portions 426 and 428 are coupled to handle portions 425  
2 and 427 at substantially right angles thereto. Thus the  
3 jaws portions extend substantially perpendicularly from  
4 pivot 424 with respect to the handle portions. Any of the  
5 variously disclosed tension systems may be employed in  
6 clamp device 420.

7  
8 Various changes and modifications to the embodiments  
9 herein chosen for purposes of illustration will readily  
10 occur to those skilled in the art. For example, while the  
11 arcuate clamp bars are illustrated coupled at one end by a  
12 pin, it will be understood that the clamp bars may be  
13 coupled by being integrally formed with one of the handle  
14 portions, adhered thereto or welded, etc. To the extent  
15 that such modifications and variations do not depart from  
16 the spirit of the invention, they are intended to be  
17 included within the scope thereof which is assessed only by  
18 a fair interpretation of the claims.

19  
20 Having fully described the invention in such clear and  
21 concise terms as to enable those skilled in the art to  
22 understand and practice the same, the invention claimed is:

## CLAIMS

1. A clamp device comprising:

a first member having a handle portion and a jaw portion;

a second member having a handle portion and a jaw portion;

a pivot pivotally coupling the first member and the second member intermediate their respective handle portion and jaw portion for opposed pivotal motion;

an arcuate clamp bar having a first end coupled to the first member and a second end, an arc of the arcuate clamp bar being concentric with the pivot; and

a break lever having an end pivotally coupled to the second member and having an aperture with the arcuate clamp bar extending therethrough, the break lever movable laterally between a



frictionally engaged position, frictionally engaging the arcuate clamp bar and a disengaged position, and substantially motionless longitudinally.

2. A clamp device as claimed in claim 1 wherein the arcuate clamp bar extends into the handle portion of the second member.

3. A clamp device as claimed in claim 2 further includes guide members carried by the handle portion of the second member guiding the arcuate clamp bar therethrough.

4. A clamp device as claimed in claim 1 further including a latch carried by the handle portion of the second member, the latch movable between an open position permitting the breaking lever to move to the frictionally engaged position and a closed position in which the break lever is held in the disengaged position.

5. A clamp device as claimed in claim 1 wherein at least one of the jaw portions of the first member and the second member is flexible in an outward direction and biased in an inward direction.

6. A clamp device as claimed in claim 5 wherein a portion of at least one of the jaw portions of the first member and the second member flex in an outward direction and are biased in an inward direction.

7. A clamp device as claimed in claim 6 wherein the portion of at least one of the jaw portions of the first member and the second member includes a spring clip.

8. A clamp device as claimed in claim 6 wherein the portion of at least one of the jaw portions of the first member and the second member includes a pivot joint biased in the inward direction.

9. A clamp device as claimed in claim 1 wherein at least one of the handle portions of the first member and the second member is flexible in an inward direction and biased in an outward direction.

10. A clamp device comprising:

a first member having a handle portion and a jaw portion, one of the jaw portion flexible in an outward direction and biased in an inward direction and the handle portion flexible in an inward direction and biased in an outward direction;

a second member having a handle portion and a jaw portion;

a pivot pivotally coupling the first member and the second member intermediate their respective handle portion and jaw portion for opposed pivotal motion between an open position and a closed position; and

a locking assembly having a frictionally engaged position preventing the first member and the second member from moving toward the open position and a disengaged position allowing the first member and the second member to move toward the open position.

11. A clamp device as claimed in claim 10 wherein a portion of at least one of the jaw portions of the first member and the second member flex in an outward direction and are biased in an inward direction.

12. A clamp device as claimed in claim 11 wherein the portion of at least one of the jaw portions of the first member and the second member includes a spring clip.

13. A clamp device as claimed in claim 11 wherein the portion of each of the jaw portions of the first member and the second member includes a pivot joint biased in the inward direction.

14. A clamp device as claimed in claim 10 wherein the locking assembly comprises:

an arcuate clamp bar having a first end coupled to the first member and a second end, an arc of the arcuate clamp bar being concentric with the pivot; and

a break lever having an end pivotally coupled to the second member and having an aperture with the

arcuate clamp bar extending therethrough, the break lever movable laterally between the frictionally engaged position, frictionally engaging the arcuate clamp bar and the disengaged position, and being substantially motionless longitudinally.

15. A clamp device as claimed in claim 14 wherein the arcuate clamp bar extends into the handle portion of the second member.

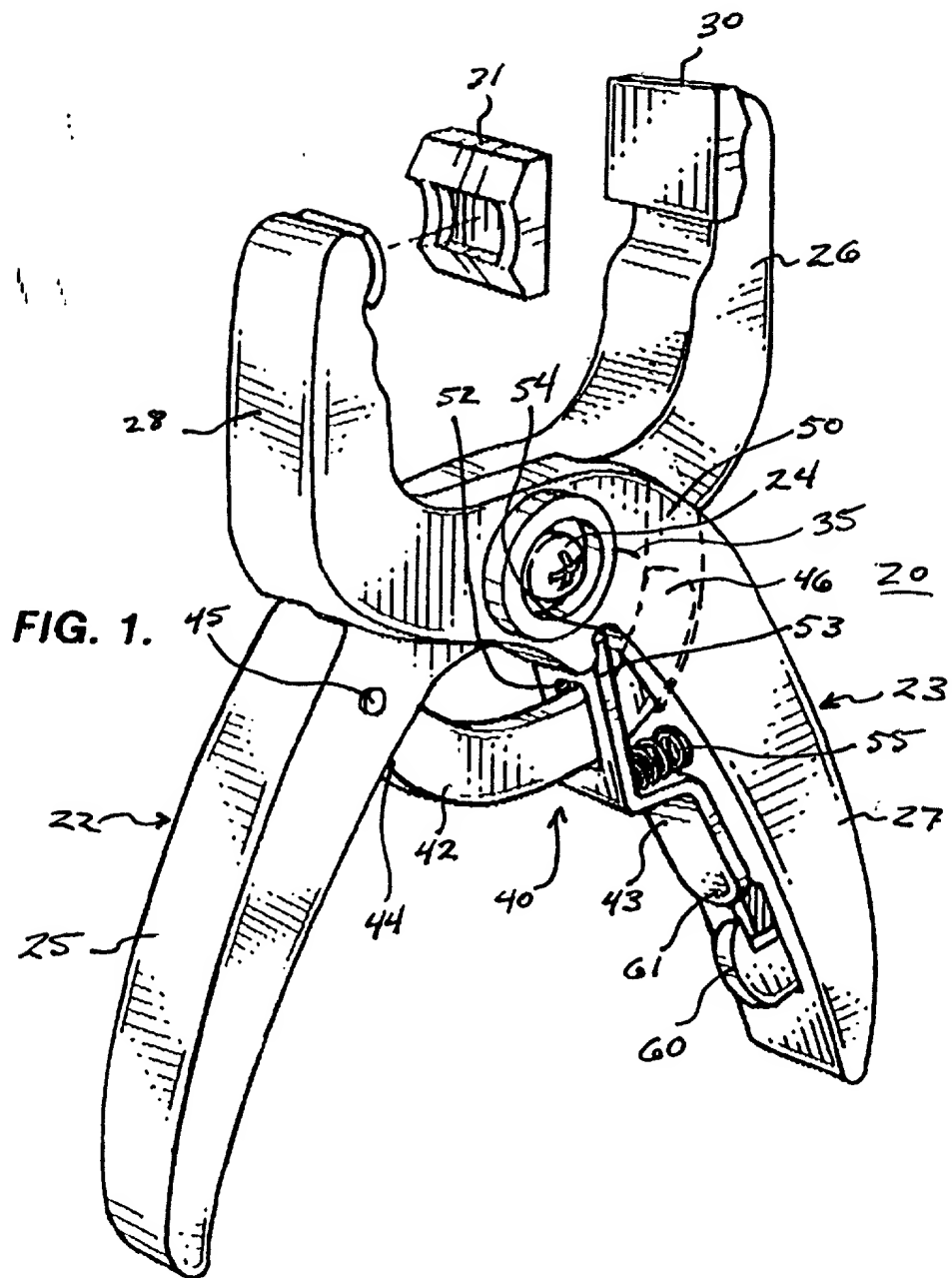
16. A clamp device as claimed in claim 15 further includes guide members carried by the handle portion of the second member guiding the arcuate clamp bar therethrough.

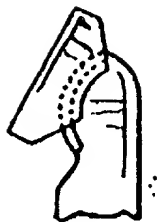
17. A clamp device as claimed in claim 14 further including a latch carried by the handle portion of the second member, the latch movable between an open position permitting the breaking lever to move to the frictionally engaged position and a closed position in which the break lever is held in the disengaged position.

1 ABSTRACT OF THE DISCLOSURE

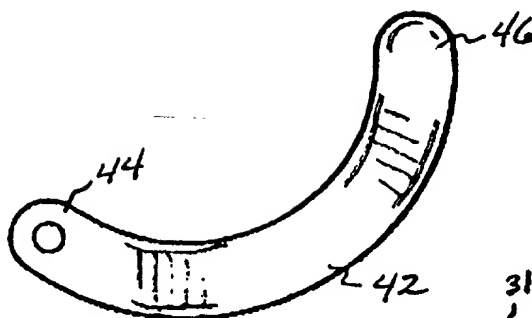
2

3 A clamp device including first and second members each  
4 having a handle portion and a jaw portion, the jaw portion  
5 flexible in an outward direction and biased in an inward  
6 direction. A pivot pivotally coupling the first member and  
7 the second member for opposed pivotal motion and a locking  
8 assembly having a frictionally engaged position preventing  
9 opening of the clamp device and a disengaged position  
10 allowing opening of the device.

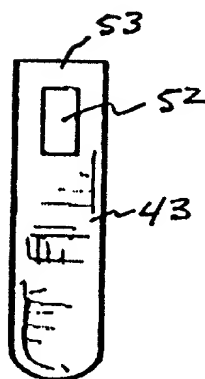




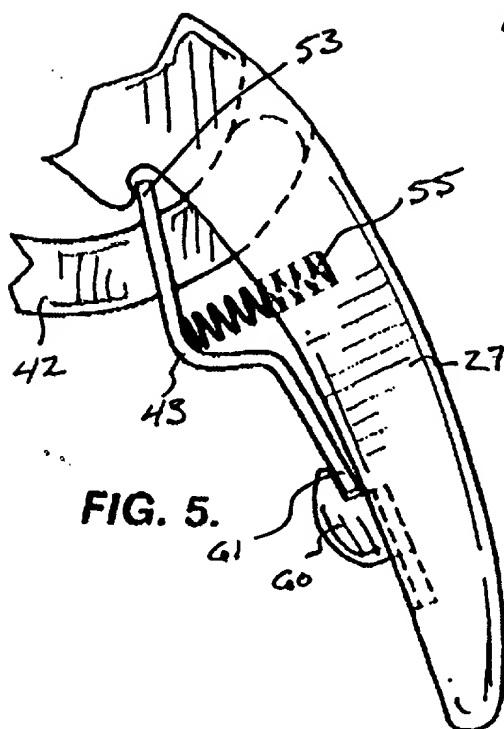
**FIG. 2.**



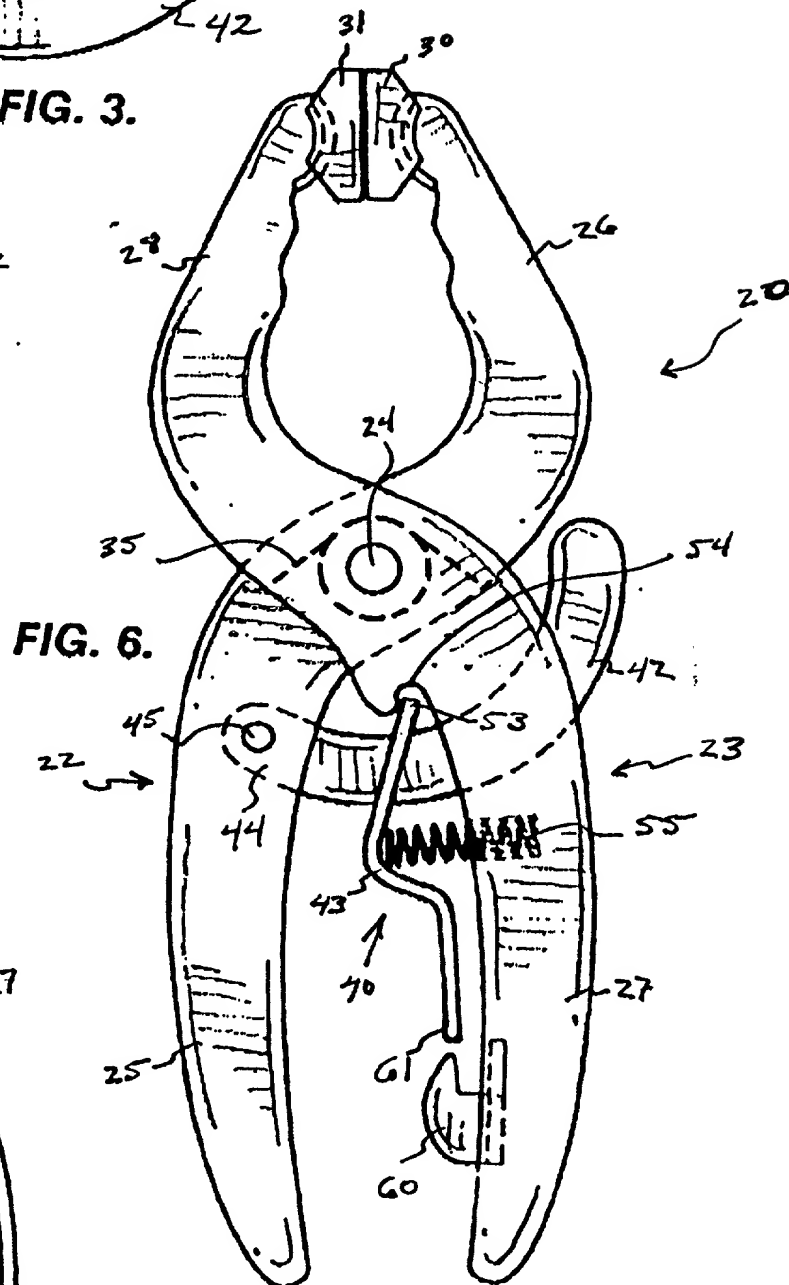
**FIG. 3.**



**FIG. 4.**



**FIG. 5.**



**FIG. 6.**



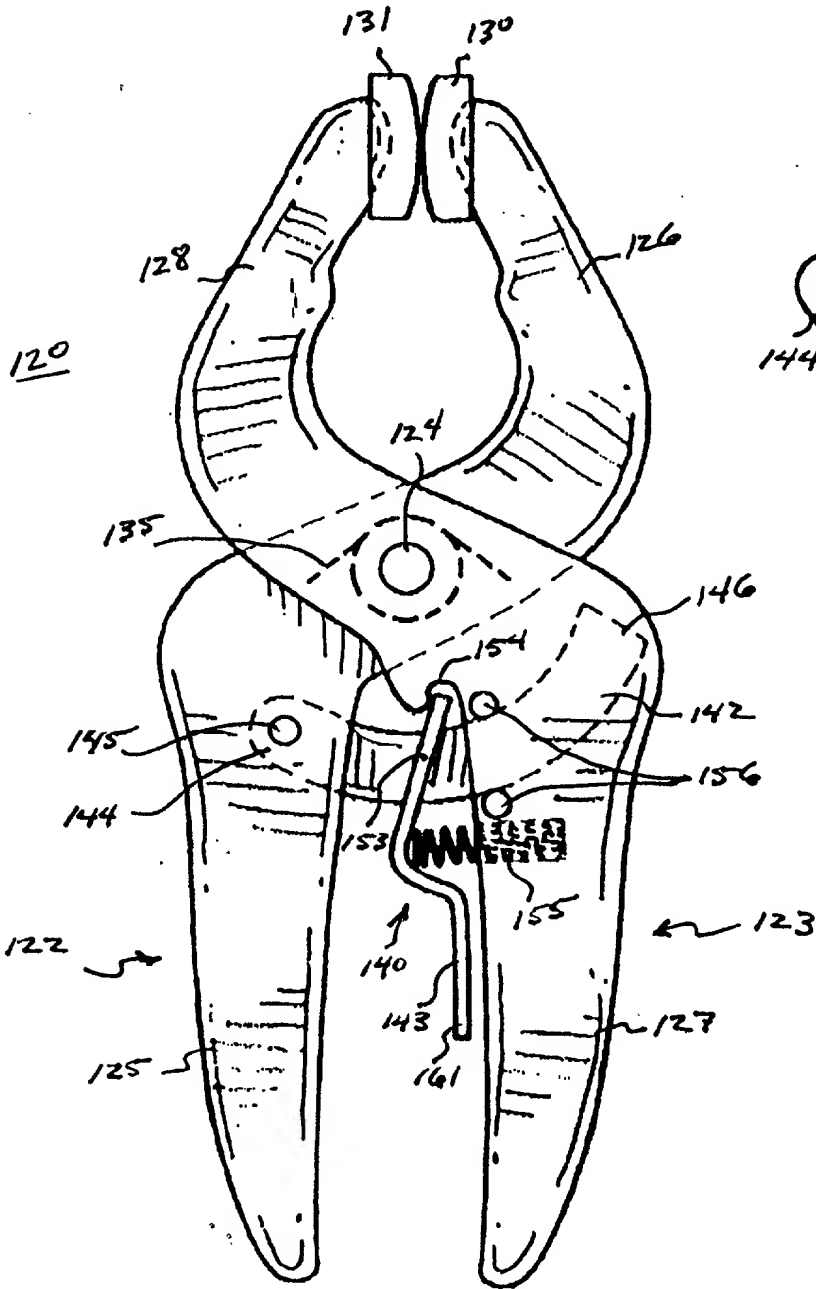


FIG. 7.

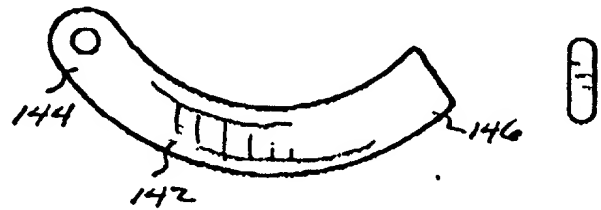


FIG. 8.

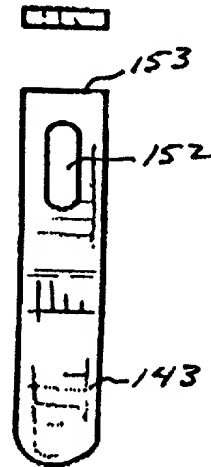
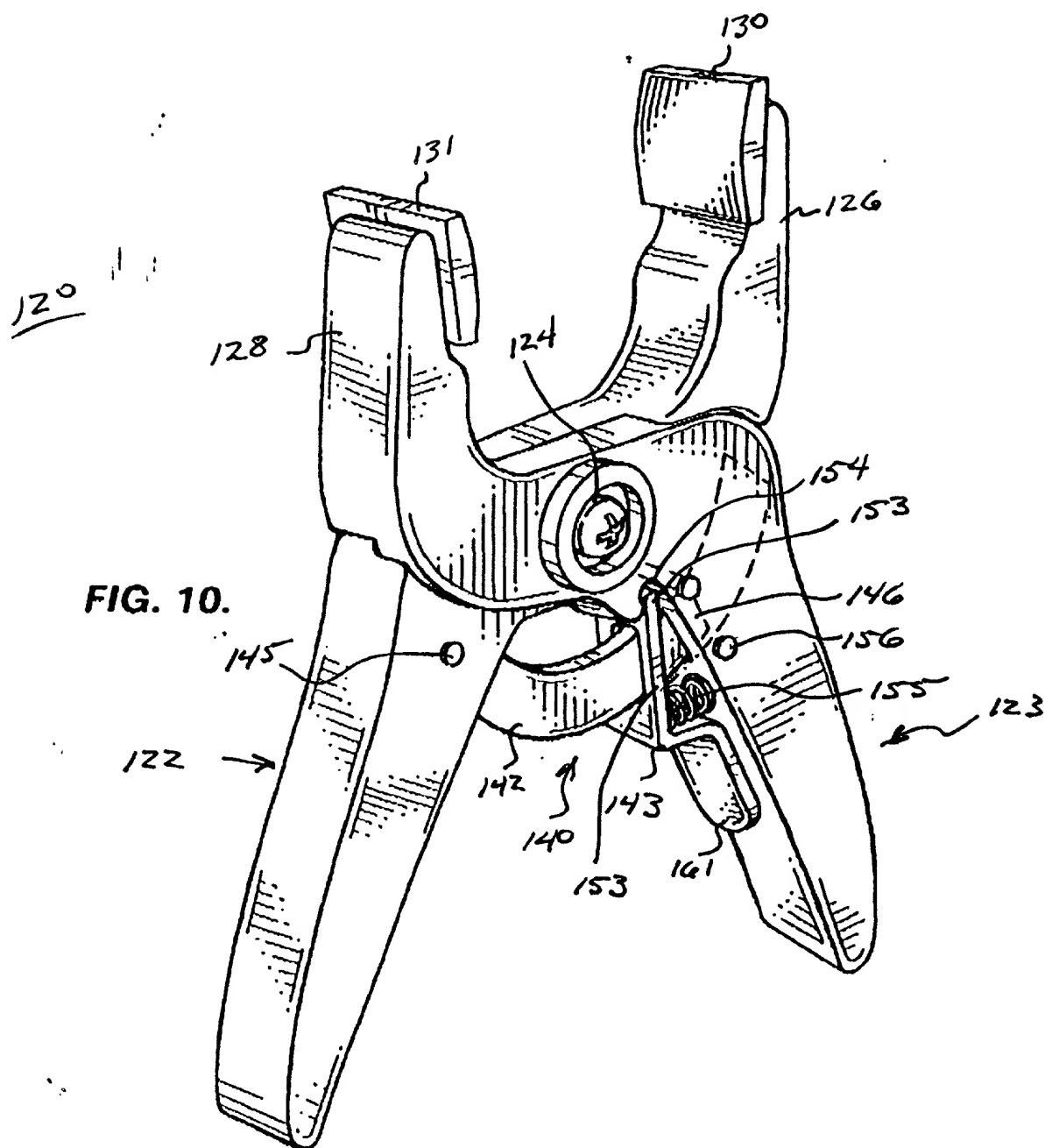
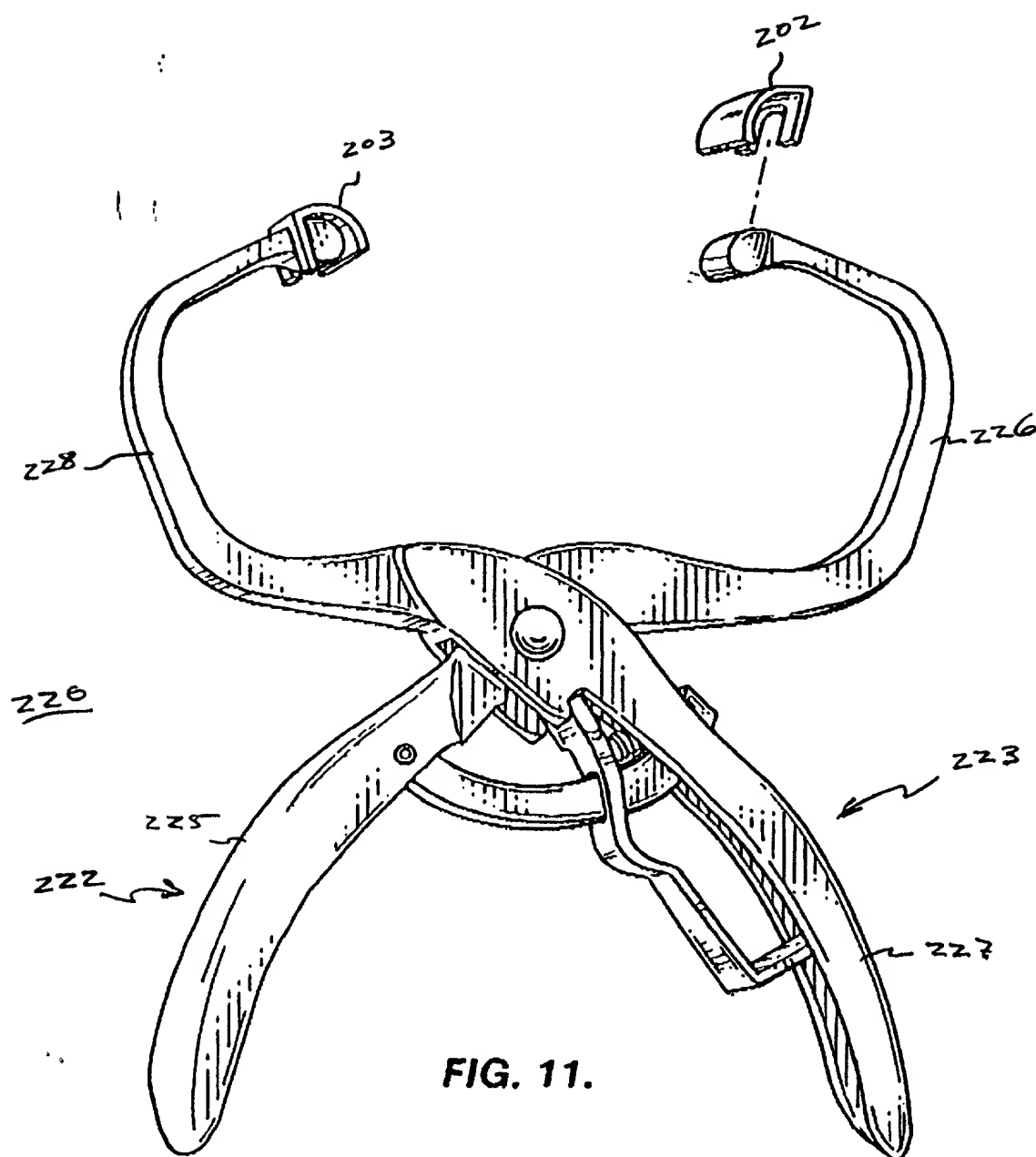
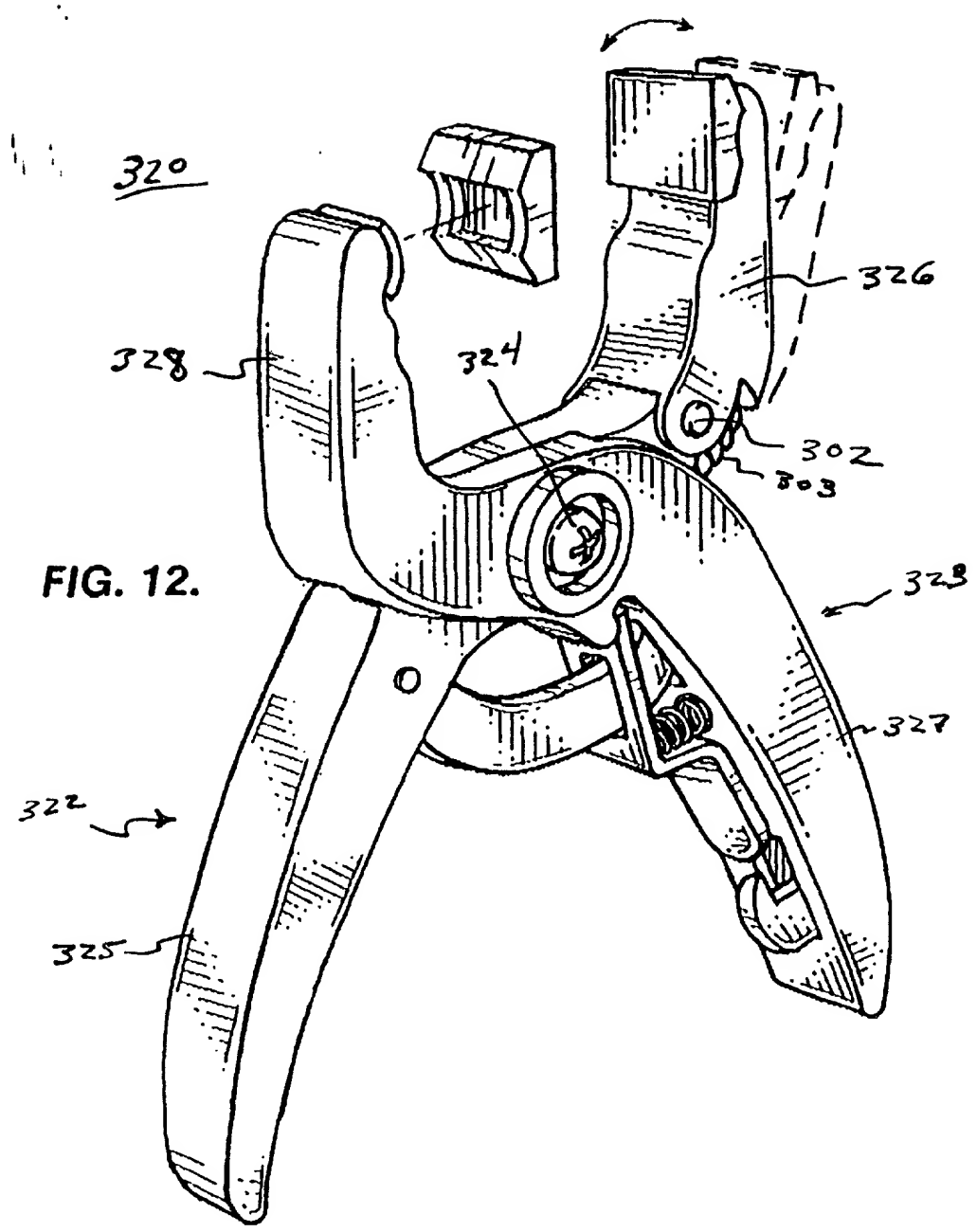


FIG. 9.





602-897-8674



602-897-8674

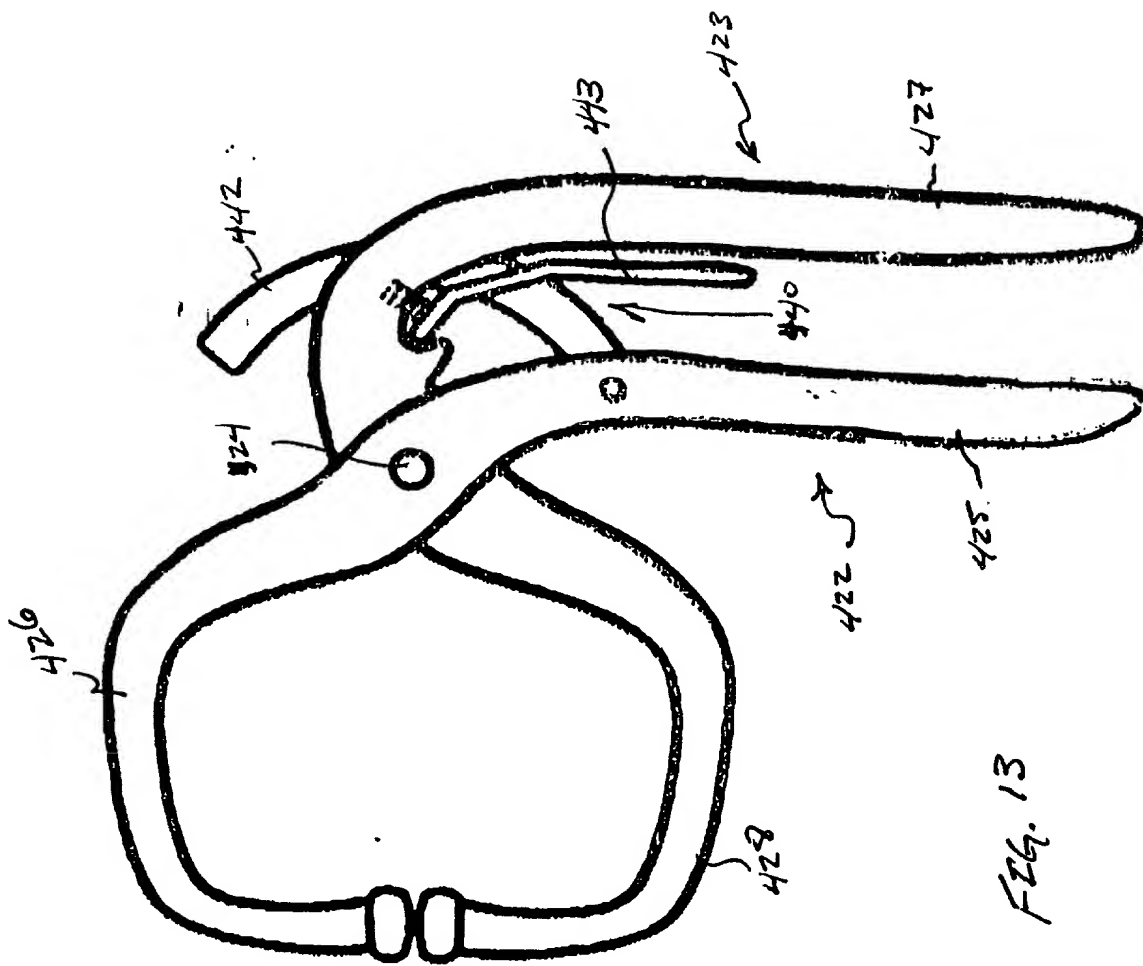


Fig. 13

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled *CLAMP DEVICE* (RAP Docket Number 3339-PA13) the specification of which:

  x   is attached hereto.

           was filed on                                  as Application

Serial No.                    and was amended on                                   
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
			Yes	No
<u>          </u> (Number)	<u>          </u> (Country)	<u>          </u> (Day/Mo./Yr. Filed)		
<u>          </u> (Number)	<u>          </u> (Country)	<u>          </u> (Day/Mo./Yr. Filed)	Yes	No
<u>          </u> (Number)	<u>          </u> (Country)	<u>          </u> (Day/Mo./Yr. Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States applications(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States Application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Applic. S/N) (Filing Date) (Status--pend., pat., abandoned)

I hereby claim the benefit under Title 35, United States Code § 119(e) to U.S. Provisional Application Serial Number 60/132,266, filed 03 May 1999.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

#### POWER OF ATTORNEY

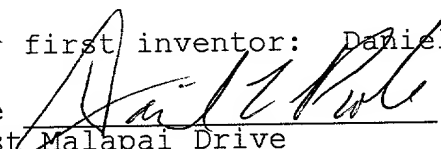
As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Robert A. Parsons, Reg. No. 32,713  
Michael W. Goltry, Reg. No. 39,692

Send correspondence to: Robert A. Parsons  
PARSONS & GOLTRY  
340 East Palm Lane  
Suite 260  
Phoenix, Arizona 85004

Direct Telephone Calls to: Robert A. Parsons  
(602) 252-7494

Full name of sole or first inventor: Daniel L. Poole

Inventor's signature   
Residence: 3319 West Malapai Drive  
Phoenix, Arizona 85051

Date 11-30-99

Citizenship: U.S.A.  
Post Office Address: SAME AS ABOVE

Full name of second inventor: Robert N. Poole

Inventor's signature

Date

Residence: 39820 N. 7<sup>th</sup> Street, Phoenix AZ 85027

11/30/99

Citizenship: USA

Post Office Address: P.O. Box 2898, Pinetop AZ 85935